

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLE C. DAHLERUD

Appeal No. 95-3290
Application 08/062,156¹

ON BRIEF

Before THOMAS, JERRY SMITH and LEE, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134
from the examiner's final rejection of claims 1-7 and 9-15,

¹ Application for patent filed May 6, 1993. According to appellant, this application is a continuation of Application 07/601,672, filed October 23, 1990 (abandoned).

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which constituted all the claims in the application. An amendment after final rejection was filed on November 17, 1994 and was entered by the examiner. This amendment cancelled claim 6. Therefore, this appeal is directed to claims 1-5, 7 and 9-15.

The disclosed invention pertains to a method and apparatus for rapidly locating data blocks on a tape. More particularly, a block map is provided in memory which stores information with respect to a plurality of entry points on the tape and the number of logical blocks stored on the tape. Specific logical data blocks are rapidly accessed on the tape using the entry point information and the number of the desired logical block.

Representative claim 1 is reproduced as follows:

1. A method for rapidly accessing a desired logical data block identified by a logical block number on a tape, comprising steps of:

providing the tape with a plurality of categorizing marks wherein a plurality of logical blocks are respectively grouped following the data categorizing marks;

providing a categorizing mark counter which counts the categorizing marks;

providing a logical block counter;

providing in memory a block map formed as an information table defining a plurality of entry points corresponding to a plurality of entry point intervals to be defined, for each entry point said block map defining its location on the tape in terms of said categorizing marks and a logical block number; and

upon receiving a command to locate said desired logical block, checking said block map to determine a closest entry point which directly precedes the desired logical block to be located, using the categorizing mark counter to locate said nearest entry point, and then without any further referral to another block map serially reading the logical blocks directly following the entry point in order to count each logical block which is traversed, and incrementing the logical block counter until it reaches said logical block number of said desired logical data block.

The examiner relies on the following references:

Klumpp et al. (Klumpp)	4,472,750	Sep. 18, 1984
Usui	4,656,535	Apr. 07, 1987
Hood et al. (Hood)	4,747,126	May 24, 1988
Osterlund	4,775,969	Oct. 04, 1988

Claims 1-5, 7 and 9-15 stand rejected under 35 U.S.C.

§ 103. As evidence of obviousness, the examiner offers Klumpp in view of Osterlund with respect to claims 7, 9 and 11-15, and adds Usui with respect to claims 1-5 and 10.

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Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answers for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-5, 7 and 9-15. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine,

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837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

As indicated by the cases just cited, the examiner has

at least two responsibilities in setting forth a rejection under

35 U.S.C. § 103. First, the examiner must identify all the differences between the claimed invention and the teachings of the prior art. Second, the examiner must explain why the identified differences would have been the result of an obvious modification of the prior art. In our view, the examiner has not properly addressed his first responsibility so that it is impossible that he has successfully fulfilled his second responsibility.

In our view, each of the independent claims recites subject matter that the examiner has asserted is taught by the applied prior art, but we are unable to find such teachings in the applied prior art. Thus, there are differences between the claimed invention and the teachings of the applied prior art which have gone unrecognized by the examiner. Since the examiner has not identified these differences, the rejection fails to provide arguments as to why these differences would have been obvious to one having ordinary skill in the art. Therefore, the prima facie case of obviousness has not been properly established for these claims.

We consider first the rejection of independent claim

7. The examiner argues that Klumpp teaches a tape system having a plurality of fixed length data blocks, but Klump does not teach the claimed block map relating logical blocks to physical blocks as recited in claim 7 [answer, pages 4-5]. Osterlund is cited for its teaching of record storage and retrieval using a high-level directory and embedded directories relating physical and logical data blocks. The examiner concludes that the invention of claim 7 obviously results when the directories of Osterlund are used in Klumpp [Id. at page 5].

Appellant argues that neither Klumpp nor Osterlund teaches that the logical block being sought has a corresponding logical block number as claimed. It is further argued that there is no logical block counter nor a block map establishing relationships using logical block numbers. Appellant also argues that the prior art does not teach that the entry point mark is in front of the desired logical block. Finally, appellant argues that the references do not teach a block map which is used without reference to any further block

map [brief, pages 10-11]. The examiner disagrees with appellant's arguments.

We agree with most of appellant's arguments. The fact that Osterlund counts bytes of data does not establish that there are entry points in terms of a logical block number. The block map of Osterlund refers to embedded directories and not to logical block numbers. The examiner asserts that claim 7 does not require that the directory be before the logical block, however, the examiner ignores what claim 7 does recite. Claim 7 recites that the tape is moved to a mark in front of the desired logical block which is not suggested by the applied references. The embedded directories in Osterlund are located after the data which is to be accessed. The embedded directories in Osterlund operate as additional block maps which must be used to read the desired data. Claim 7 specifically recites that such further block maps cannot be used.

Thus, notwithstanding the examiner's assertions to the contrary, there are several features of independent claim 7 which are not suggested by the applied prior art. Since the obviousness of these differences has not been addressed in the

rejection, there is no prima facie showing of the obviousness of claim 7. Accordingly, we do not sustain the rejection of claim 7, the rejection of claim 9 which depends therefrom, or the rejection of claim 11 which is grouped with claim 7.

Independent claim 12 is similar to claim 7 and also recites that the entry point has a logical block number lower than the desired logical data block number. The rejection of claim 12 fails for the same reasons discussed above with respect to claim 7. Therefore, we do not sustain the rejection of claim 12 nor of claims 13 and 14 which depend therefrom. Independent claim 15 is grouped with claim 12 so that we also do not sustain the rejection of claim 15.

We now consider the rejection of independent claim 1. The examiner applies Klumpp and Osterlund in the same manner discussed above and additionally applies Usui for counting indications from a beginning of tape. The examiner asserts that it would have been obvious to locate data sectors in Klumpp by counting indications of sector boundaries as taught by Usui [answer, page 6]. Appellant makes several of the same arguments discussed above and argues that Usui does not

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overcome the deficiencies of Klumpp and Osterlund [brief, page 15].

We again agree with appellant. Claim 1 recites many of the same features which we previously considered with respect to claim 7. Since Usui does not make up for the deficiencies we noted above in Klumpp and Osterlund, we do not sustain the rejection of claim 1 for reasons we have previously discussed. Since claims 2-5 depend from claim 1 and claim 10 is grouped with claim 1, we also do not sustain the rejection of these claims.

In summary, we have not sustained the examiner's rejection of any of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-5, 7 and 9-15 is reversed.

REVERSED

JAMES D. THOMAS)
Administrative Patent Judge)
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PATENT	JERRY SMITH) BOARD OF
	Administrative Patent Judge) APPEALS AND
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